

### REMARKS

The Office Action of February 8, 2005, has been received and reviewed. Claims 1-21 are currently pending. Claims 9, 10, 12, 14 and 17-21 have been withdrawn from consideration, and claims 1-8, 11, 13, 15 and 16 stand rejected. Claims 1, 3, 5, 6-8, 15 and 16 have been amended, and new claims 22 and 23 have been added as set forth herein. All amendments are made without prejudice or disclaimer. Reconsideration is requested.

#### Substance of the Examiner-Initiated Interview

The Examiner provided an examiner-initiated interview summary to the applicants' representatives for the interview with the Examiner on March 22, 2005. The interview summary provided by the Examiner indicated that Zachary C. Howard and Andrew F. Nilles participated in the telephonic interview and that no exhibits were shown. Claims 1-8, 11, 13, 15 and 16 were discussed along with the art of record pertinent to the rejections under 35 U.S.C. § 103.

The interview summary further indicated that upon review of the record, the rejection of claims 1-8, 11, 13, 15 and 16 under 35 U.S.C. § 103(a) is withdrawn and that the applicants do not need to respond to the 103(a) rejection. The interview summary also indicated that the remainder of the Office Action is maintained that the applicants' time period of response is maintained.

The interview summary accurately describes the interview and, thus, the above statement is made in accordance with M.P.E.P. § 713.04.

#### Double Patenting

Claims 1-8, 11, 13 and 15 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as assertedly being unpatentable over claims 1-5, 7, 12, 14 and 16 of co-pending application no. 10/303,157, in view of U.S. Patent 5,885,779 and further in view of Nicholson et al.

Since this is a provisional double patenting rejection, applicants will address the provisional rejection at the time the claims of the instant application or the claims of co-pending application no. 10/303,157 are in condition for allowance.

**Rejections under 35 U.S.C. § 112, second paragraph**

Claims 1-8, 11, 13, 15 and 16 stand rejected under 35 U.S.C. § 112, second paragraph, as assertedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. At least partially in view of the amendments to the claims, applicants respectfully traverse the rejections.

Specifically, it was thought that claim 1 was indefinite and unclear as to whether the domain that comprises a heterologous bait polypeptide is meant to be a domain that comprises two heterologous proteins or if the domain is a single bait polypeptide that is heterologous with respect to the ligand-binding domain. (*See, Office Action*, page 5). Claim 1 was further thought to be incomplete for omitting essential elements. (*See, Id.* at page 6). Claim 16 was thought to be indefinite for reciting a kit that did not contain two or more elements, and for reciting a cloning vector allowing construction of the vector of claim 11. (*See, Id.*)

Although applicants do not agree that any of the claims are indefinite, to expedite prosecution, claim 1 has been amended to recite a recombinant receptor comprising: an extracellular ligand-binding domain of a receptor origin; and a cytoplasmic binding domain of the receptor origin, wherein the cytoplasmic domain comprises a heterologous bait polypeptide heterologous to the receptor; wherein the activation of said recombinant receptor is inhibited by binding of a fusion protein to said heterologous bait polypeptide, said fusion protein comprising a prey polypeptide and at least one of an inhibitor of the activation of said recombinant receptor and a recruitment site for the inhibitor of the activation of said recombinant receptor.

It should be clear that the heterologous bait polypeptide of amended claim 1 is heterologous to the receptor from which the cytoplasmic binding domain originates.

With regard to the assertion that claim 1 has omitted certain elements, claim 1 has been amended to include elements directed towards the extracellular ligand-binding domain, the cytoplasmic binding domain, and to recite that the activation of the recombinant receptor is inhibited by binding of a fusion protein to the heterologous bait polypeptide in accordance with the suggestion of the Examiner. (*See, Id.* at page 6).

Thus, one of ordinary skill in the art would understand what is claimed in amended claim 1.

Claim 16 has been amended to be directed towards a cloning vector that results in the vector of claim 11 in place of a kit and, thus, should be definite to one of ordinary skill in the art.

Reconsideration and withdrawal of the indefiniteness rejections of claims 1-8, 11, 13, 15 and 16 are requested.

#### **Rejections under 35 U.S.C. § 102**

Claims 1-8, 11, 13, 15 and 16 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by Nicholson et al. Applicants respectfully traverse the rejections as set forth herein.

Nicholson et al. does not disclose each and every element of any of claims 1-8, 11, 13, 15 and 16 as required for anticipation. For instance, Nicholson et al. does not disclose a recombinant receptor comprising an extracellular ligand-binding domain of a receptor origin and a cytoplasmic binding domain of the receptor origin having a heterologous bait polypeptide, wherein the heterologous bait polypeptide is heterologous to the receptor as recited in amended claim 1. Nicholson et al. discloses a chimeric receptor consisting of the extracellular domain of the Epo receptor, and the transmembrane and cytosolic domain of the gp130 receptor. (*See, Nicholson et al.*, Abstract and page 6494). Thus, Nicholson et al. cannot anticipate amended claim 1.

Each of claims 2-8, 11, 13, 15 and 16 depends directly or indirectly from amended claim 1 and, thus, includes the elements of claim 1. Since Nicholson et al. does not disclose each and every element of amended claim 1, Nicholson et al. also cannot disclose each and every element of dependent claims 2-8, 11, 13, 15 and 16.

Reconsideration and withdrawal of the anticipation rejections of claims 1-8, 11, 13, 15 and 16 are requested.

#### **Rejections under 35 U.S.C. § 103**

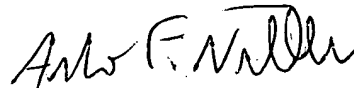
The Office Action indicated that claims 1-8, 11, 13, 15 and 16 stand rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Eyckerman et al. in view of U.S. Patent 5,885,779 and further in view of Nicholson et al. However, the applicants note the telephone conference that the Examiner had with the applicants' attorney on March 22, 2005, indicating

that the Examiner was removing the rejections under 35 U.S.C. § 103(a) and that there was no need to address the rejections.

### CONCLUSION

In view of the foregoing amendments and remarks, the applicants submit that the claims define patentable subject matter and a notice of allowance is requested. Should questions remain after consideration of the foregoing, the Office is kindly requested to contact the applicants' attorney at the address or telephone number herein.

Respectfully submitted,



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